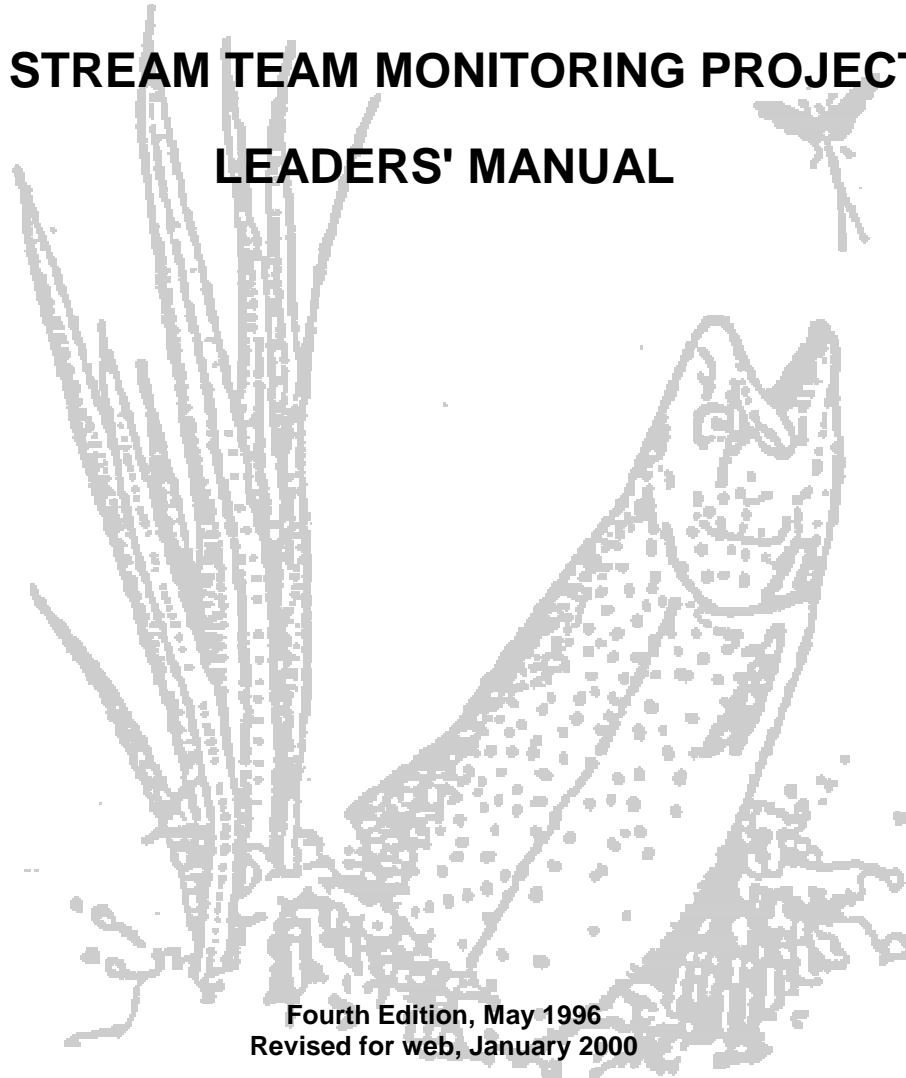


SHORELINE SURVEY

A STREAM TEAM MONITORING PROJECT

LEADERS' MANUAL



Fourth Edition, May 1996
Revised for web, January 2000

Originally Prepared by
Joan Channing Kimball, Adopt-A-Stream Program Coordinator

Assisted by
Maria Van Dusen, Riverways Program Coordinator
Karen I. Pelto, Stream Ecologist

Massachusetts Riverways Programs,
Department of Fisheries, Wildlife and Environmental Law Enforcement

Adopt a Stream

November, 2000

Dear Stream Team member,

Congratulations on becoming part of a Stream Team in your watershed! As you participate in Shoreline Surveys, you will look for the vital signs of the river. With experience, your group will learn to read a river, from human eyes, and from the eyes of wildlife and on behalf of the river itself. You will learn what the river needs to be healthy, and you will learn how to spot threats to the river. The river is a reflection of the adjacent land use and surrounding watershed.

The Survey, designed to be conducted by lay people, provides information about the current conditions of your river and its corridor. By filling in data sheets and maps and by taking photographs, you will be creating baseline data for your river. This information will alert your group, your town, and state agencies to problems on your river, to the existence of valuable resources and to potential access, trail and recreational resources. Groups can use the data to help protect rivers from continued pollution from pipes and runoff, prevent destruction of habitat and siltation of fish spawning areas, and protect adequate flows for the river.

The completion of a Shoreline Survey allows your group to prioritize your findings and create an Action Plan based on field observations of the river. Using techniques from this manual, you can determine which problems require immediate action, and you can create long term Action Plans for your river. By involving town officials from the beginning, you bring them into a partnership to implement these plans on behalf of the river. These plans and suggestions can be included in your town's Master and Open Space Plans and can influence town boards' daily decision making. You can share the information with the regional watershed association, the EOEa watershed team and EOEa State Agencies and bring them in to help solve problems and protect resources. Data from Shoreline Surveys can be used as documentation when you apply for grants.

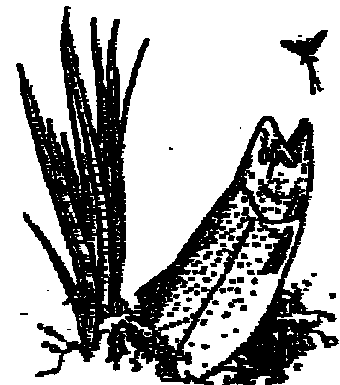
Shoreline Surveys are an important tool for river and watershed protection. What happens upstream affects downstream, and what happens on the tributaries affects the mainstem. We urge you to expand your survey work into an Action Plan and a stewardship program for your stream (brook or river). We invite groups that have completed surveys and Action Plans to become a member of the **Adopt-A-Stream Program** and join the many other active stewardship groups working on behalf of their favorite brook or river. The Adopt-A-Stream Program gives awards -- often at a Selectmen's meeting -- to groups that have followed the process and begun projects to protect the river. This highlights the river and the work of your members and raises awareness in your community.

You may first want to skim the *Table of Contents*, the *Shoreline Survey Process* flow chart, the *List of Figures* and the text. You can then concentrate on sections as you need them. This manual, *A Leader's Guide to Shoreline Surveys*, is a compilation of information gained from working with groups across the Commonwealth. Your group needs to pick and chose and substitute what will work on your stream. As we learn from you and other groups, we will update this information. Accompanying this manual is the *Hop Brook Case Study*, which summarizes the highlights of a Shoreline Survey. You may wish to photocopy this for your Shoreline Surveyor volunteers.

If you decide that you are interested in doing a Shoreline Survey with an existing Stream Team or watershed association, or if you want to use the Shoreline Survey to form a Stream Team, please call us. We will see if we can schedule a training session and follow-up sessions for your group or your region. We must plan in advance for these sessions since we cover the entire state. For all groups, we are always available for phone consultations and to provide materials and networking opportunities with other groups and state agencies.

Sincerely,

Rachel Calabro, Adopt-A-Stream Program Coordinator
Amy Singler, Stream Team Organizer



Acknowledgements

We extend special thanks to the groups and individuals who have contributed information for this guide. We have included information from EPA Region 10, Salt Pond Watchers, Save the Bay, R.I., the Westport River Watershed Alliance, the Pokanoket Watershed Alliance, the Mother Brook Coalition, the Neponset River Watershed Association and its Stream Teams, and the Hop Brook Protection Association. We particularly appreciate the contributions of Karen Riggert, Hop Brook Task Force Coordinator; Vic Campbell, Neponset River Estuary Group; Bob Hartzel, Mother Brook Coalition; Ralph Tiner and Christie Foote-Smith, MA Wetlands Restoration and Banking Program; Steve Hurley, Division of Fisheries and Wildlife, Southeast District; Julia Blatt, Riverways Staff Planner for SuAsCo Wild and Scenic River Study; Brian Brodeur, 1994 Riverways Staff for Assabet and Taunton Rivers; Correigh Green, 1991 Riverways intern; and Peter Bonome, 1993 Riverways intern.

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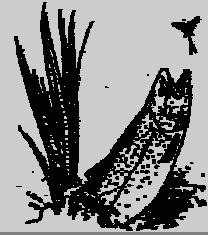
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Adopt-A-Stream

Stream Team Process



Stream Teams provide on-going stewardship for a stream (a tributary or part of a mainstem) for at least a year. Stream Teams provide stewardship by working on projects to protect and restore the stream. They are locally based and do their work through consensus and working with town officials.

Forming a Stream Team:

Watershed association, EOEa Watershed Team, Conservation Commission, citizens call the Adopt-A-Stream Program (AAS) and ask for assistance in creating a Stream Team. AAS supports the formation including the creation of a local steering committee (interested people, town officials (i.e. Concom & Board of Health), abutters, businesses, anglers, etc.).



Planning:

Steering committee plans survey, involves the press & cable TV, invites volunteers, sets up training workshop.



Shoreline Survey:

Training: AAS conducts the training workshop. Combining data sheets and interactive slide show results in a generic shoreline survey in the room. Training is a night meeting 2-4 days before the Shoreline Survey.

Shoreline Survey: is done either as a one-day event or within a window of a couple of weeks. Data sheets, cameras, maps are primary tools. Sections are divided so that Survey takes approximately 2 hours.



Priority Setting:

After filling out data sheets, Stream Team members determine which are the significant problems, assets, and priorities for work.



Action Planning:

At an action planning meeting, AAS staff facilitates meeting that considers each of the priorities for work and determines (1) which problems should be reported; (2) short term projects; (3) long term projects. Action Plan is a "wish list", Stream Team then determines which projects it will tackle. Some projects are easily "doable"; others need technical assistance.



Shoreline Survey Report:

Stream Teams with watershed association support prepares a report that can be formally presented to the town, EOEa Watershed Team, AAS Program, others. This is the official record.



Implementation of the Plan:

Stream Teams work on projects (often using task forces) that protect and restore the stream. Projects vary. See Success List and upcoming AAS Web Page for examples. OAR has a great web page by the Acton Stream Team.



AAS Award:

DFWELE presents award at a public meeting (could be at the selectman's meeting, special event, cleanup) with the press. Group presents report to the town. Brings awareness of the importance of the stream and the work of the group.

The **Adopt-A-Stream Program** works to support and encourage local stream teams and communities in efforts to protect and restore the ecological integrity of the Commonwealth's watersheds: rivers, streams and adjacent lands.

If you know someone else who would be interested in our newsletter, please contact:

Rachel Calabro, Coordinator • Adopt-A-Stream Program • 251 Causeway Street, 4th Floor • Boston, MA 02114 (617) 626-1549
email: Rachel.Calabro@state.ma.us • Also check out our web-site: [Http://www.state.ma.us/dfwele/rivAAS_toc.htm](http://www.state.ma.us/dfwele/rivAAS_toc.htm).

Riverways Programs, Joan Kimball, Director

Department of Fisheries, Wildlife and Environmental Law Enforcement, David M. Peters, Commissioner
Executive Office of Environmental Affairs, Bob Durand, Secretary

Introduction to the Shoreline Survey

The Adopt-A-Stream Program of the Massachusetts Department of Fisheries, Wildlife, & Environmental Law Enforcement has developed the Stream Team Approach to river watching in response to local concerns for the health of rivers and river resources. Residents of various towns have called and asked us to help them follow up on abused areas adjacent to the river. Reports include dumped tires, fish kills, accumulation of litter and debris, discolored water near landfills and gravel pits, runoff from parking lots and sediment from bridges. People are concerned about possible pollution in rivers, and they want to help.

What is the purpose of Shoreline Surveys?

The overall purpose of a Shoreline Survey is learn about the river in order to protect it. Through the Survey, you will be able to determine some of the vital signs of a river, report immediate problems to proper authorities, and prioritize both short term and long range work that needs to be done.

Objectives of Shoreline Surveys include gathering baseline data, designing a water quality monitoring program, finding causes of high coliform counts, tracking polluted runoff, protecting land, protecting or restoring habitat and promoting citizen awareness. Each group must decide which objectives best serve the river.

How do you do a Shoreline Survey?

Groups divide the river into reasonably sized segments and walk or canoe each segment. The choice of walking or canoeing often depends upon the conditions on the river. Some river banks are impenetrable because of vegetation or inaccessible because of unsafe conditions, or concerns of the owner. When a river is suitable for canoeing, groups can avoid requesting landowner permission to cross private property, but they still should invite the landowners to join them as part of an important constituency-building process. If neither walking the shores nor canoeing is possible, groups must rely on bridge crossings and views from roads.

Volunteers in pairs, or, in canoes, in threes with a non-paddling note taker, write their observations on the data sheets, take photographs, and identify key areas on their maps. This Shoreline Survey guide contains data sheets which you can use or modify to fit your river. In addition, this guide consists of instructions, samples of work, descriptions and photographs of what you will see, and background information.

When should you do a Shoreline Survey?

Shoreline Surveys can be done any time in your river protection work. Some groups conduct them as they first begin their work and use it as a planning tool; others, at midpoint, to pinpoint sources of pollutants or to gauge success of clean ups or restoration projects, and some conduct them regularly to see seasonal and yearly differences. Although you can do Shoreline Surveys at any time of year, there are advantages and disadvantages to each season. Groups may choose to do surveys at times of low water, in late summer, when some problems are more evident; or in late fall or early spring when vegetation does not obscure the bank. In the spring or fall, groups should avoid walking on the stream bed because fish may be spawning.

What can you do with the data from a Shoreline Survey?

Both the detailed questions on the data sheets and the summary sheets can be the basis of a report on the health of the river which you can put together to share with the public and local officials. From follow up sessions, groups create priority action items and an action plan. The Shoreline Survey manual describes how to create priority lists, an action plan, and suggests follow-up actions you can take.